

1c531 U.S. PTO  
09/756830



Case No. 02

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventors: **Brenner et al**

Serial No:

Group Art Unit:

Filed: **8 January 2001**

Examiner:

Title: **ENZYMATIC SYNTHESIS OF OLIGONUCLEOTIDE TAGS**

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. 1.56 AND 1.97**

Assistant Commissioner of Patents  
Washington, D.C. 20231

Sir:

The references cited on the accompanying PTO-1449 form(s) may be material to the examination of the above-identified application and are, therefore, submitted in compliance with the duty of disclosure defined in 37 CFR 1.56 and 1.97. The Examiner is requested to make these citations of official record in this application. Copies of the cited references are enclosed or have been previously submitted in prior application(s) to the above application.

This Information Disclosure Statement under 37 CFR 1.56 and 1.97 is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that any one or more of these citations constitutes prior art.

**SUBMISSION INFORMATION**

- ☒ This Information Disclosure Statement is being submitted within three (3) months of filing or before mailing of a first Office Action, whichever occurs last. (37 CFR 1.97(b))
- ☐ This Information Disclosure Statement is being submitted before the mailing date of either a final Office Action or a Notice of Allowance. (37 CFR 1.97(c)) Applicant elects to pay the fee set forth in 37 CFR 1.17(p) for submission of the Information Disclosure Statement under 37 CFR 1.97(c).
- ☐ This Information Disclosure Statement is being submitted after the mailing date of a final Office Action or Notice of Allowance, whichever occurs first, but before, or simultaneously with, the payment of the issue fee. (37 CFR 1.97(d)) Applicant hereby petitions for the consideration of this Information Disclosure Statement under 37 CFR 1.97(d)(ii). The petition fee under 37 CFR 1.17(i)(1) is authorized or enclosed as indicated below

**PAYMENT OF FEES (IF ANY DUE)**

**Certification of Mailing by "Express Mail"**  
I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated below and is addressed to the Assistant Commissioner of Patents, Washington, D.C. 20231.

Date of Deposit:  
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8 January 2001

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Stephen C. Macovicz, Reg. No. 30,300

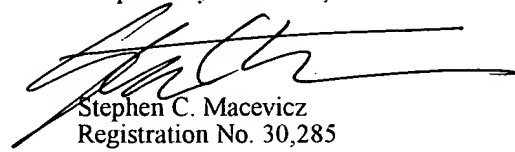
☐ Check No. \_\_\_\_\_ in the amount of \_\_\_\_\_ is enclosed.

☒ **FEE AUTHORIZATION.** The Commissioner is hereby authorized to withdraw from Deposit Account

**12-2491**

any submission fees or petition fees required for this Information Disclosure Statement.

Respectfully submitted,



Stephen C. Macevicz  
Registration No. 30,285

Enclosures: 1449 form(s)  
References

|                               |               |                |            |   |
|-------------------------------|---------------|----------------|------------|---|
| Form PTO-1449 (adapted)       | Docket No.    | 810-02         | Serial No. | JCS31 U.S. PTO<br>09/756830<br>01/08/01 |
|                               | Applicant     |                |            |   |
|                               | Brenner et al |                |            |   |
| REFERENCES CITED BY APPLICANT | Filing Date   | 8 January 2001 | Group      | 1635                                    |


#### U.S. PATENT DOCUMENTS

| Examiner's Initial |  | Document Number | Inventor(s) | Class /Subclass    | Title  | Issue Date (Filing Date) (m-d-y) |
|--------------------|--|-----------------|-------------|--------------------|--|----------------------------------|
| P1                 |  | 4,719,180       | Eaton       | <del>435/320</del> | Synthetic urogastrone gene, corresponding plasmid recombinants, transformed cells, production thereof and urogastrone expression | 01-12-88<br>(09-13-84)           |
| P2                 |  |                 |             |                    |  |                                  |

#### FOREIGN PATENT DOCUMENTS

| Examiner's Initial |  | Country and Document Number            | Inventor | Title   | Publication Date (m-d-y) |
|--------------------|--|--|----------|---|--------------------------|
| F1                 |  | Europe<br>0 292 128 A1<br>(88303847.3) | Segev    | Improved DNA probes.                                    | 11-23-88                 |
| F2                 |  | WO 00/20639<br>pct/us99/22585          | Brenner  | Enzymatic synthesis of oligonucleotide tags             | 04-13-00                 |
| F3                 |  | WO 96/41011<br>pct/us96/09513          | Brenner  | Oligonucleotide tags for sorting and identification     | 12-19-96                 |
| F4                 |  | WO 93/06121<br>pct/us92/07815          | Dower    | Method of synthesizing diverse collections of oligomers | 04-01-93                 |
| F5                 |  |  |          |   |                          |

|   |                    |                 |         |
|---|--------------------|-----------------|---------|
| EXAMINER  | <i>[Signature]</i> | Date considered | 8/28/03 |
| *EXAMINER: Initial if reference considered, whether or not citation in conformance with MPEP 609; Draw line through citation if not in conformance and/or not considered. Include copy of this form with next communication to applicant. |                    |                 |         |

|                         |             |                |            |   |
|-------------------------|-------------|----------------|------------|---|
| Form PTO-1449 (adapted) | Docket No.  | 810-02         | Serial No. | J6531 U.S. PTO<br>09/756830<br><br>01/08/01 |
|                         | Applicant   | Brenner et al  |            |   |
|                         | Filing Date | 8 January 2001 | Group      |   |

#### OTHER REFERENCES

| Examiner's Initial |    | Citation  |
|--------------------|----|---|
| <i>JS</i>          | D1 | Theriault et al, "Optimization of ligation reaction conditions in gene synthesis," Biotechniques, 6: 470-472 (1988).                      |
|                    | D2 | Brenner and Lerner, "Encoded combinatorial chemistry," Proc. Natl. Acad. Sci., 89: 5381-5383 (1992).                                      |
|                    | D3 | Ferretti et al, "Total synthesis of a gene for bovine rhodopsin," Proc. Natl. Acad. Sci., 83: 599-603 (1986).                             |
|                    | D4 | Khorana, "Total synthesis of a gene," Science, 203: 614-625 (1979).   |
|                    | D5 | Sproat and Gait, "Chemical synthesis of a gene for somatomedin C," Nucleic Acids Research, 13: 2959-2977 (1985).                          |
| <i>JS</i>          | D6 | Wells et al, "Cassette mutagenesis: an efficient method for generation of multiple mutations at defined sites," Gene, 34: 315-323 (1985). |

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|---|--------------------------------|
| EXAMINER <i>Lea</i>   | Date considered <i>8/28/03</i> |
| *EXAMINER: Initial if reference considered, whether or not citation in conformance with MPEP 609; Draw line through citation if not in conformance and/or not considered. Include copy of this form with next communication to applicant. |                                |